

Daily GLOWBUGS

Digest: V1 #103

via AB4EL Web Digests @ SunSITE

Purpose: building and operating vacuum tube-based QRP rigs

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Subject: glowbugs V1 #103

glowbugs

Wednesday, September 3 1997

Volume 01 : Number 103

Date: Tue, 2 Sep 1997 10:31:18 -0400 (EDT)

From: EWoodman@aol.com

Subject: 6M Receive Converter

Hi all,

Does anyone, in their piles of old handbooks or magazines, happen to have a schematic for a 6 meter receive converter? The solid state one that I slapped together works, but not that well, and is not exactly in keeping with the spirit of the old glowing stuff.

Tnx and 73,
Eric KALYRV

Date: Tue, 2 Sep 1997 09:22:09 -0700 (MST)

From: Jeff Duntemann <jeffd@coriolis.com>

Subject: The weekend's homebrewing

Hi gang--

Halfway through the long weekend I actually ran out of "important" things to do. Egad! Headed for the garage at 40% the speed of light, left standing waves in the dirt.

I pulled out my 6AG7/6L6 80M transmitter lashup off the short-list shelf and fired it up to make sure it still worked. 16 watts out, as before. For fun I pulled a greasy old 6DQ5 sweep tube from the bin, rewired a couple of pins on the octal socket (this is my PCB board-based prototyping system that I've described here before) added a plate cap, parasitic suppressor, and better plate choke (actually the three are a unit unearthed in the junkbox, obviously "removed from equipment" tho heaven knows what) and without any further changes to the circuit applied power. 20+ watts

out, looked clean and parasitic-free. However, my poor bench supply was groaning a little; the 440 V B+ was being pulled down to 210V by the 130 ma load, and the unregulated screen voltage was down to 75V! (It's really only a 100 ma supply.)

But my curiosity was piqued (not peaked, as in an IF can; made that mistake before in my magazine and got reamed out for it...) and I hauled out the middling homebrew supply I got for a dollar at Flagstaff '96 and mentioned here once before. I finished adding two OD3/VR150s to it, giving me both 300V and 150V regulated, plus 450V B+ at considerably higher current than my smaller bench supply--judging by the power transformer and chokes, I would guess it could give me 150-175 ma at least, maybe 200.

About all I had to do to the circuit was pull out the screen dropping resistor and hook the screen to the new regulated 150V output. Shazam! 36W output, still clean. I haven't measured the screen current yet so I can't quote power input or efficiency. (Eventually I did run out of weekend...) Plate input alone is about 50W.

Anyway, watt-quibbling aside, this is seriously cool, considering I was using a fairly common junkbox tube that's actually cheaper than a good 6L6. (\$9 from Alltronics.)

My intuition is that the tube can supply a little more power than this, and the next step is to rebuild the oscillator stage so that there's a tuned input to the final. The ultimate goal is a 75W input box for 80, 40, and 20. I think I'm most of the way there. At least I now have the power supply.

Haven't had a chance to do much of this all summer. I guess autumn is finally upon us.

- --73--

- --Jeff Duntemann KG7JF
Scottsdale, Arizona

Date: Wed, 03 Sep 1997 19:49:03 EDT
From: kmlh@juno.com (kmlh @ juno.com)
Subject: Re: Dentron GLA-1000 B linear

The following is copied from another reflector. W6NQ is the owner of RF Parts Co.

At only \$ 30 ea for the Russian (\$20 for the Yugo) it may be an attractive tube for the power obtainable.
A 40V filament version is also available at the same price which "could" make a transformerless PS 3 tube amp possible to the adventuresome.

73....Carl KMLH

- ----- Begin forwarded message -----

Just a general observations on the EL509 in replacing 6LQ6:

We have played around with various manufacturers of this tube.
The tube is quite a bit larger in size.
The Russian made tube is the most rugged (vs. Yugo, etc.)
I think it was used as a voltage regulator in USSR tank transmitters.
The original Russian tube number is not EL509, but this number
has been applied for the "TV Sweep" applications, i.e. linear amps.

You can expect about half the drive requirement to achieve same output.
You can also expect lots of p.e.p. The EL509 is 40W dissipation.
However, this tube is easy to kill with excessive drive.
Be sure to improve cooling, bias mods, etc.
It will plug into most 6LQ6 sockets if you enlarge socket holes a bit
(dental tool).

Regards, Merit W6NQ (W6NLO)

End of glowbugs V1 #103

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